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## ABSTRACT

Recent events in Asia and other parts of the globe have prompted calls from many quarters for international rescue of the monetary or fiscal authorities of distressed countries. We contrast the experience before 1973 of rescues of monetary authorities of advanced countries temporarily short of liquidity with recent experience of bailouts. International rescues in the past involved relatively small amounts of money, sufficient to stave off devaluation or abandonment of a fixed exchange rate, while remedial policies were put in place. Recent bailouts involve handing over relatively large amounts to both foreign lenders and domestic investors after devaluation of a pegged exchange rate to avoid their incurring wealth losses. We document past rescues, whether successful or unsuccessful, by monetary regimes, and what's different today from past experience.

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# UNDER WHAT CIRCUMSTANCES, PAST AND PRESENT, HAVE INTERNATIONAL RESCUES OF COUNTRIES IN FINANCIAL DISTRESS BEEN SUCCESSFUL?

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## *1. Introduction*

Recent events in Asia and other parts of the globe have prompted calls from many quarters for international rescue of the monetary or fiscal authorities of distressed countries, not only the current batch but also likely candidates for succor in years to come. The rescue of Mexico in 1995 is held up as an example of success that supports the rescue enterprise. The rationales for adopting this course range from the need to avoid contagion, the urgency of protecting investors, concern for preserving political stability, and the supposition that the countries have an implicit contract with the IMF to rescue them. We propose to examine the validity of these rationales against the background of the occasions in the past when international rescues were mounted. Rescues sometimes were successful, sometimes not. We explore the reason for different outcomes. We want to know the conditions that led to an international rescue in the past and the terms of the rescue as a basis for comparison with actual or proposed current examples.

In a second section, we define the terms we use, principally, what constituted a financial crisis, who were the agents that delivered international rescues, and on what conditions they extended loans. The financial crises that evoked the international rescues that we document were invariably currency crises. A currency crisis, defined as a clash between fundamentals and pegged exchange rates, whether fixed or crawling, signified that monetary and fiscal authorities were subjected to drains of international reserves that they held. Such drains threatened the

liquidity of the authorities and raised doubts about the credibility of their capacity to preserve the prevailing foreign exchange value of the domestic currency. Sometimes banking panics also accompanied currency crises. In an older terminology, external and possibly internal drains were features of financial crises. The events that precipitated currency crises could emerge in a variety of circumstances. Typical circumstances included unanticipated real shocks, such as domestic or foreign harvest failures, wars and indemnities -- which created adverse balances of trade -- insolvency of financial institutions, and inability to service international debts. The effects of a financial crisis varied with the type of monetary regime that prevailed. A financial crisis was a greater challenge to a flawed monetary regime than to a regime that functioned well. International rescues therefore did not achieve good results in a flawed regime.

The rescuers historically were central banks and governments, extending help to other central banks and governments. International agencies did not exist. In addition, private sector investment banks often undertook or participated in rescues. The loans were temporary, repayable on resolution of the financial crisis, and bore a market interest rate. Private sector loans were commercial operations.

The situation became more complex after 1914. Financial crises were often triggered in an environment characterized by inconsistencies and flaws in the structure of the interwar gold exchange standard and the Bretton Woods system. Rescues associated with crises generated by these systemic conditions on occasion temporarily resolved the crises, but ultimately did not, as the flawed system collapsed. The rescuers included international agencies, in addition to central banks, governments, and before the postwar era, private sector investment banks. Loans were made on commercial as well as concessional conditions. Swap agreements, introduced by the

Federal Reserve in 1962, constitute a specialized form of international lending.[1] They were first used to resolve crises in the Bretton Woods era.

The biggest transformation in international rescues occurred after the collapse of the Bretton Woods arrangements. Financial crises that occasioned rescues in the aftermath were cases of insolvency rather than illiquidity, and the countries that were rescued had structural and microeconomic problems, not merely macroeconomic problems. The IMF was transformed from a provider of temporary balance-of-payments assistance to a provider of medium-term financing to heavily indebted countries. The World Bank was also transformed from a source of funds for development projects to a source of funds to support structural change in industry, agriculture, and energy, as well as of sector adjustment loans.

In addition to these changes, another aspect of recent rescues is noteworthy. The argument driving international rescues in the decade of the 1990s that did not appear in earlier times is that they stave off contagion to countries that might have avoided a crisis if international conditions had not deteriorated. We discuss why it is that only recently has this argument surfaced, and why we believe the argument is overblown.

In section 3, we review examples of international rescues, from the early 19th century to the 1990s. We discuss the checkered record of cooperation among central banks in times of exiguous gold or foreign exchange reserves (1825, 1839, 1847, 1857,1890, 1895, 1907) . In the interwar period stabilization loans were given to monetary authorities and governments. We do not regard these loans as international rescues. The financial support extended to Britain with an overvalued currency in 1931 and from Britain, France, the U.S. and the BIS to Austria and

[1] A swap is an arrangement with a foreign central bank. Under Bretton Woods and in the immediate aftermath, it allowed the Federal Reserve to obtain foreign currency equivalent to a specified dollar ceiling for a designated period. Since the end of the Bretton Woods system, the purpose of a Federal Reserve swap with a foreign central bank is to provide the latter with dollars.

Germany in 1931 were failed rescues. The flawed interwar gold exchange standard was the cause of the failures.

The U.S. Treasury's Exchange Stabilization Fund began its career of stabilization loans in the mid-1930s. Lend-Lease and the Anglo-American Loan of 1946 were respectively a stabilization and a reconstruction loan, not rescues. [2] The Marshall Plan, 1947-53, was also a stabilization loan.[3] The IMF made an appearance in the Suez crisis. It had only a limited role in the sterling crises of 1964-67 and the franc crisis of 1968, which involved rescues as part of the pathology of Bretton Woods. We end our historical review with the debt crisis of 1982, which did not involve an international rescue.

In section 4, we discuss how the rescues mounted in the 1990s differ from their predecessors, specifically the Mexican crisis of 1995, the current Asian crises, and the Russian crisis. Unlike their predecessors, these arose because of capital account, not current account, reversals. Capital flight produced the crisis in each country, beginning with a devaluation of the national currency that had fixed or crawling peg ties to the dollar or a basket of currencies.

The international rescues of the 1990s mark a watershed in the purpose, size, and term of the funds provided countries in distress. The loans in the era before the 1990s were extended to help monetary authorities in their attempt to preserve a peg , while loans of the 1990s were made after the peg collapsed and to bail out investors and lenders who would otherwise have suffered from the fall of the exchange rate. These bailouts have been justified on the ground that they will

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[2] In 1945, the U.S.-U.K. Loan Agreement settled British Lend-Lease obligations and extended a $3.75 billion reconstruction loan, then a very large amount, on concessional terms. The Lend-Lease debts, estimated at $21 billion gross, $17 billion net, were repaid to the U.S. at 4 cents to the dollar. The reconstruction loan, payable over 50 years, with five years grace on principal, at a 2% per annum interest rate, was approved by Congress in 1946. The agreement prohibited use of the loan proceeds to satisfy previously existing claims of third parties on Britain.

[3] The Marshall Plan that provided U.S. funds to Western European countries was in part a debt relief program. The debt was repayable in local currency at the original exchange rate, so a country whose currency depreciated would repay relatively little, and a country whose currency appreciated would set aside its loan repayment in counterpart

prevent contagion spreading to other countries. The size factor is a reflection of the growth of international capital flows to the affected countries provided by banks and nonbank financial institutions of the industrialized world. The term of the loans they arranged is an indication that the troubled countries were not only illiquid. They were also insolvent. The success of the rescues is in question.

In section 5, we reach six conclusions about the differences between international rescues before the 1990s and the bailouts that have since occurred.

*2. Some Definitions*

The definition of a financial crisis has remained constant over the centuries. What has changed is the nature of a rescue, and the identity of the rescuer. They depend on the monetary regime.

Under the pre-1914 gold standard, a financial crisis occurred when a shortage of liquidity afflicted the monetary or fiscal authorities. The problem could arise because of a deficit in the balance of payments, and be complicated by a domestic banking panic. This meant that the fixed exchange rate of the national currency was endangered. Countries that adhered to the gold standard can be viewed as members of a club. If they had no other priorities, they had an interest in supporting the existing pattern of exchange rates. Under such circumstances, the members would often cooperate in assisting the troubled country. The rescue involved the temporary provision of gold or foreign exchange to cover its deficit. Upon the correction of the balance of payments, the loan was repaid. The rescuer was one or more foreign central banks, sometimes acting at the direction of their governments. It was understood that, in other circumstances, the rescuer might need assistance, which would be forthcoming from members of the club with

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funds that could be relent. At the end of the program, remaining counterpart funds were to be used for cultural and educational purposes.

surplus reserves. However, if it was not in a member's self-interest to assist another, cooperation would be withheld. The members of the club were industrialized countries, not peripheral countries, many of which were colonial possessions of the members. If a peripheral country defaulted on an international debt, the rescue that was arranged was for a member's benefit.

The rescuer could also be a private investment firm that lent gold to a government on commercial terms to stem a loss of reserves. This was an international rescue to the extent that a syndicate of lenders, organized by a private firm, included banks of several countries. Again, the loan was temporary, repayable on restoration of the reserves.

World War I brought an end to the classical gold standard. In the attempt to revive the old system in the 1920s, members of the club extended stabilization loans to countries restoring or newly establishing the gold exchange standard. We do not regard stabilization loans as responses to financial crises. They were extended to help restore the functioning of an economy that had been disrupted by war.

The interwar gold exchange standard was flawed. Financial crises were unavoidable. The rescues that were arranged were occasioned by parity misalignments. If these were not corrected, the rescues had no prospect of succeeding. Since fundamental change in the regime's operations was not attempted, the regime collapsed in 1931. The loans that private sector firms made to gold-bloc countries in the later 1930s were also fruitless.

The first international agency to be established, dating from 1930, the BIS, initially had no rescue mandate. The U.S. Treasury Exchange Stabilization Fund, established in 1934, without a mandate, made stabilization loans to low-income countries, some of which it helped because of terms of trade reversals and other external shocks. The ESF pattern of lending to politically-favored countries influenced the operation of the IMF (Schwartz 1997).

The creation of the Bretton Woods system after the war was based on the perception that private capital markets did not work. That perception underlay the establishment of international agencies, the IMF to deal with current account and terms of trade shocks, the World Bank with economic development strategies. Capital controls were introduced to block international capital flows. Financial crises that punctuated the Bretton Woods era in large measure were produced by the systemic flaws of the regime. Industrialized countries with misaligned exchange rates were subjected to persistent current account deficits. Industrialized countries in surplus provided the funds to the countries in deficit, but again the rescues had no lasting positive effects.

The collapse of the Bretton Woods arrangements in the early 1970s changed the monetary regime. At the same time, the rise of OPEC and the increase in the price of oil created balance-of-payment problems for Latin American and African countries. The source of assistance also changed. American and European money-center and regional banks recycled surplus current account funds of OPEC countries to the less-developed countries to cover their deficits. The IMF and the World Bank were essentially bystanders during the 1970s.

The countries that borrowed in the 1970s in order to purchase high-priced petroleum, or, in the case of Mexico, to finance accelerating current account deficits could not service their international debts in the 1980s. The loans of the 1970s that ended in default in the 1980s can not be termed rescues. The IMF response to default by the heavily indebted countries was to expand its activities from a provider of temporary assistance to include a variety of loan facilities that provided medium-term financing. It extended loans with conditionality provisions to dozens of countries, when under Bretton Woods it made loans to only one or two countries a year. The World Bank followed the same course. Ultimately, years after the crisis erupted, it was resolved when the U.S. Treasury sold zero-coupon Brady bonds to the debtors that issued them to the

creditors at discounts from the face value of their obligations. This episode in our view does not qualify as a successful international rescue.

Finally, we distinguish between the rescues before the 1990s and the bailouts since. Before this decade, rescue loans were made in an attempt to prevent a devaluation or abandonment of a pegged exchange rate. They were temporary loans and they accompanied a package of remedial policies. Recent rescue loans have been granted after the defense of the peg has failed. They have been granted to emerging countries in trouble, to offset potential losses for foreign bankers if the borrowers were unwilling to repay their loans at face value. The loans have also been channeled to the borrowing countries' banks that are insolvent because their liabilities (which are mainly short term) are denominated in revalued foreign currencies and their assets (which are mainly long term) in devalued domestic currencies.

### *3. International Rescues Before the 1990s*

International rescues have a long history. Charles Kindleberger (1989) describes loans made by the Bank of England to Dutch banks in the early eighteenth century, and suggests that there were predecessors. In this section we study the rescues of the past two centuries demarcated by international monetary regime. In the period before World War II, rescue loans to central banks and sovereign governments were often arranged by or intermediated by private investment banks, such as Rothschilds, Barings, and J.P. Morgan. Since World War II, all of the rescues have been arranged by official monetary authorities, or international agencies, the IMF, BIS, and the World Bank. In Table 1, we document the series of rescues described in the text, according to the circumstances involved, the lenders, the size and term of the rescue (if known), and the outcome.

#### *3.1 The Gold Standard, 1821-1914*

In the century before World War I, frequent short-term loans were made to central banks and other monetary authorities to relieve pressure on their reserves during financial crises. These crises, referred to at the time as either internal or external drains, occurred as a result of real shocks, such as domestic or foreign harvest failures, wars and indemnities, which created adverse balances of trade. Crises also occurred during banking panics, when the public's demand for specie or expansionary action by the lender-of-last-resort threatened the monetary authorities' reserves.

In virtually every case, rescue loans were made on commercial terms to central banks that had a record of solvency and of credible adherence to specie convertibility. The loans were regarded as a supplement to or, in some cases, as a substitute for other remedial actions designed to replenish the monetary authorities' reserves, such as raising the discount rate and credit rationing. In many cases the loans were made on a reciprocal basis. As Flandreau (1997) suggests, there is little evidence to suggest that these rescues were in any way systematic or part of a pattern of central bank cooperation, as has recently been maintained by Eichengreen (1992).

We divide the gold standard era into two periods, one before 1880, when many countries still adhered to a specie standard other than gold, i.e., bimetallism or silver, and the period of the classical gold standard, 1880-1914.

### *3.1.1 The Specie Standard, 1821-1879*

A number of episodes of reciprocal assistance, arranged between the Banque de France and the Bank of England, occurred during these decades.

*1825*

A major banking panic in London climaxed a business expansion of booming real activity, rising commodity prices, and speculation in Latin American stocks. Country bank credit

and a highly accommodative Bank of England monetary policy, following resumption of specie payments in 1821, fueled the boom (Neal 1998; Bordo 1998). In response to a rising trade deficit, in late 1824, the Bank sold exchequer bills. This triggered a stock market crash in April 1825, a downturn in commodity prices, bank failures, and a banking panic in December. The Bank was late in providing liquidity to the market that would have prevented bank failures and bankruptcies. Suspension of convertibility was averted by a loan of £400,000 from the Banque de France on Monday, December 19, through the intermediation of the Rothschilds in Paris. According to Flandreau (1997) the loan was facilitated by the fact that England was on the gold standard, while France, formally on bimetallism, used silver as its monetary metal. The higher price of gold in England than in France (15.2:1 versus 14 5/8:1) favored the exchange (Kindleberger 1989, 203). The loan was quickly repaid.

*1836-39*

Like the 1825 crisis, a run-up in commodity prices and a stock market boom preceded the 1836 crisis in England (Temin 1969; Levy-Leboyer 1978). In the face of an external drain, the Bank of England raised its discount rate, which ended the boom, turned commodity prices around, and led to panic and recession in 1837. According to Kindleberger, the Bank of England drew bills on Paris for £400,000. The following year both output and prices recovered, and a pattern similar to that in 1837 ensued, characterized by an internal drain, a rise in Bank Rate, and a decline in prices. A mild panic followed. In 1838, the Bank arranged for a line of credit with a consortium of Paris banks.

In negotiations between the two central banks, the Banque de France stated that its statutes would not permit it to lend money on foreign bills or securities, but that it could discount bills with bankers who would lend to the Bank of England through the house of Barings as

intermediary. A syndicate of 12 of the most prominent Paris banks under the leadership of Hottinguer arranged the line of credit. In 1839 £2 million was drawn, which allowed the Bank of England to avoid a suspension of convertibility (Flandreau 1997). A line of credit for £900,000 was also arranged with banks in Hamburg (Kindleberger 1989, 204).

*1846-47*

This crisis affected both the Bank of England and the Banque de France. In December 1846, the Banque de France faced a drastic decline in its specie reserves, consequent upon a bad harvest. To avoid suspension, Hottinguer arranged with Barings in London for a syndicate of bankers to provide silver to the Banque in exchange for French 5% rentes. The syndicate obtained 25 million francs of silver from the Bank of England.

Across the channel, the Bank of England reacted to declining gold reserves by raising Bank Rate. This ended the boom, caused prices to fall, and triggered a major banking panic, which ended only with an announcement that the Chancellor of the Exchequer had signed a letter temporarily suspending the Bank Charter Act. The letter allowed the Bank to issue more notes than its gold reserves would cover. This action obviated the need for a rescue.

*1857*

Suspension of convertibility in the United States in 1857 was the start of the crisis. Correspondent banks in Liverpool were immediately affected. A gold drain led the Bank of England to raise Bank Rate, and a panic followed. As in 1847, it took a Treasury letter to end it. Negotiations to arrange a rescue loan from the Banque de France broke down. According to Flandreau, cooperation between the two central banks in the 1850s was hampered once Paris started operating on a predominantly gold basis. The commercial advantage of exchanging surplus (nonmonetary) gold for silver vanished.

In the following three decades the two authorities often competed for gold by raising discount rates.[4] On only one occasion in those decades, 1860 before the outbreak of the American Civil War, was a swap arranged, under the auspices of the Rothschilds and Barings, of £2 million in silver for the same amount in gold. Neither the 1866 Overend Gurney crisis in England nor the 1873 international financial crisis involved a rescue resolution. A panic followed the Bank of England's refusal to provide assistance to Overend Gurney, but it ended with the temporary suspension of the Bank Charter Act -- the last time it was ever invoked.

### *3.1.2 The Classical Gold Standard Era, 1880-1914*

During this period, virtually all major countries adopted the gold standard. In the 1890 Barings crisis and the 1906-07 crisis, involving the core gold-standard countries, international rescues were arranged. Some minor crises also elicited international assistance.

*1890*

Failure of the House of Barings in November 1890 resulted from a debt default in Argentina, whose securities it had underwritten. The Bank of England averted a panic by arranging a 'lifeboat' operation, whereby the government guaranteed loans by London banks to recapitalize Barings. The Bank's share in the rescue would have depleted its gold reserves sufficiently to threaten convertibility. In addition to raising the discount rate, the Bank protected its reserves by borrowing £2 million in gold from the Banque de France, the Rothschilds acting as intermediaries. Subsequently, it borrowed a further £1 million. The Imperial Bank of Russia also agreed to provide £1.5 million of German gold coins. British Exchequer bonds served as collateral for each of the loans. Eichengreen (1992, 50) believes that the news as much as the fact of the loans restored confidence.

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[4] Unlike the breakdown of cooperation between London and Paris in 1857, Vienna relieved a crisis in Hamburg by lending it 15 million silver marks. As Kindleberger (1989, 213) describes it, the appearance in December 1857 of a

The September 1998 $3.5 billion rescue of the Wall Street hedge fund, Long-Term Capital Management by a consortium of private investment banks, under the auspices of the Federal Reserve Bank of New York, is reminiscent of the 1890 rescue of Barings. The self-interest of the rescuers in both cases explains their willingness to invest in a failing enterprise. This time, however, the Reserve bank did not contribute funds to the lifeboat, as the Bank of England did, and the consortium acquired a 90% interest in the rescued hedge fund, which may not survive. The rescue of Long-Term Capital Management also brings to mind the insolvency of Barings in 1995, when an unsupervised trader in Singapore (not the highly qualified partners of the hedge fund) made interest rate bets that eroded the capital of the venerable investment bank.

*1906-07*

In response to a gold outflow to the booming U.S. markets, late in 1906, the Bank of England raised the discount rate to 6% and restricted credit to financial houses operating in the American trade. Fearing a threat to its authority, the Bank turned down the offer of a direct loan by the Banque de France (Kindleberger 1989).

Instead, the Bank agreed that the Banque would discount more than 65 million francs in foreign bills between December 1906 and March 1907 and refrain from raising its discount rate -- policies designed to direct gold to the Bank of England. A panic in New York spread to London in the fall of 1907. The Bank again raised Bank Rate, this time to 7%. As in the previous year, both the Banque de France and the German Reichsbank allowed their reserves to decline, transferring gold to England to permit England's transfer of gold to the U.S. At the height of the crisis in November, the Banque purchased up to 80 million francs in sterling bills, and forwarded 80 million francs in gold eagles to London.

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special train loaded with silver (the Silberzug) alleviated the panic.

*Minor Episodes*

In 1909 and 1910, the Banque used techniques developed in earlier crises of discounting sterling bills to ease seasonal strains on the Bank of England. Eichengreen (1992, Ch.1) documents cases of cooperation between European central banks, and cases when the Banque and the Reichsbank refrained from tightening their policies in response to gold drains in order to aid the Bank of England. During this period the Banque held massive gold reserves and was reluctant to vary the discount rate. Flandreau (1997) and Patron (1910) believe that the Banque was willing to lend its gold to other central banks as a way to protect itself from foreign induced panics. Its actions were not part of a concerted effort at cooperation, as Eichengreen argues, but were unilateral, and were taken in its own interests.

*U.S. Currency Weakness, 1894-96*

The final episode we note for the gold standard era is a privately arranged rescue of the U.S. Treasury in 1895. A U.S. budget deficit after 1890 and the issue of legal tender Treasury Notes of 1890, redeemable in coin, that the Sherman Silver Purchase Act of 1890 mandated, created uncertainty about the convertibility of the U.S. dollar, despite the repeal of the Sherman Act in 1893. To finance the deficit, the Treasury ran down the stock of gold and legal tenders. Presentation of the legal tenders outstanding for redemption threatened the gold reserve. The Treasury attempted, in January and November 1894, to restore its gold reserve at a minimum to $100 million by offering for public subscription $50 million 10-year 5% bonds. The subscribers, however, used legal tenders to obtain gold to pay for the bonds, with no increment to the gold reserve. In January 1895, a run on gold in exchange for legal tenders reduced the reserve to $45 million.

Stymied, in February 1895, the Treasury secretary contracted with the Belmont-Morgan banking syndicate, under a law which authorized him to purchase coin on terms he negotiated, to market a 4% bond issue, and provide the Treasury with a 6-month short-term interest-free gold credit line to restore the gold reserve. One half of the 3.5 million ounces of gold delivered was to be shipped from Europe at a rate not exceeding 300,000 ounces a month. The syndicate agreed to protect the Treasury against gold withdrawals paid out to redeem legal tenders or sold to obtain exchange. It delivered an additional $25 million in gold in exchange for legal tenders, and borrowed exchange in London to sell in New York, effectively controlling the exchange market. The syndicate marketed the bonds for a total of $68.8 million.

During the five months after the contract was signed, no gold was withdrawn from the Treasury. At the end of August 1895, when agricultural exports and associated gold imports rose, the syndicate was dissolved. During the electoral campaign in 1896, domestic accumulation of gold by the public and gold exports resumed in response to the strength of the pro-silver forces, and gold reserves declined. Once the Republicans won the election, pressure on the dollar eased, this time permanently.

### *3.2 The Interwar 1919-39*

Monetary authorities obtained two types of international loans during the interwar period: stabilization loans to aid countries in achieving the conditions necessary to restore gold convertibility, and rescue loans in conditions of financial crisis. The regime that was restored from 1924 to 1936 was a gold exchange standard that differed profoundly from the pre-1914 gold standard. Flaws in the structure and inappropriate policies by its members meant that whatever attempts at rescues that were made when crises struck in 1931 were doomed from the start.

The gold exchange standard whose precepts were spawned at the Genoa Conference of 1922 suffered from a series of well-documented flaws. First, because it was a gold exchange standard, designed to substitute foreign exchange for scarce gold, it was by definition more fragile than its predecessor. Second, it was less credible than its predecessor because in the post-World War I environment of enhanced democracy and the growth of labor power, authorities were not solely committed to maintaining gold convertibility; they also attached importance to maintaining domestic macroeconomic stability (Eichengreen 1992). Third, it was structurally flawed. It faced an adjustment problem between deficit countries (e.g. Britain ) which had restored convertibility at overvalued parities and surplus countries (e.g. France) which had done the opposite. This was aggravated by members' failure to observe the " rules of the game" and their proclivity to sterilize gold flows. The worst offenders were the U.S., which continually sterilized gold inflows and during the Great Depression failed to offset banking panics, and France which, after 1928, followed a gold sterilization policy. Both policies produced strong deflationary pressure on the rest of the world. It faced a liquidity problem of inadequate gold supplies to finance the growth of world trade and output because the regime was restored at a parity which greatly undervalued gold. Finally, it faced twin confidence problems of shifts in currency holdings between a weak (London) and a strong (New York) reserve center and shifts between the key currencies and gold.

Within this context, financial crises, in contrast to the preceding classical standard, would prove to be fatal to the survival of the regime. Rescue loans in the absence of fundamental reform and/or the pursuit of stable domestic policies by the other core countries would prove to be ineffectual. Loans were not offered on the same expectation as before 1914 that they would

be temporary and reciprocal. The fear that "good money was being thrown after bad" lowered the amount of assistance forthcoming.

### *3.2.1 Stabilization Loans*

Various loans were made to sovereign governments to provide them with sufficient gold and foreign exchange to maintain adherence to the pegged exchange rate of their currencies in terms of gold required to be part of the Gold Exchange Standard. These loans made to Germany, Austria, and other central European countries in 1922-1923 under the auspices of the League of Nations, but after 1924 made by the U.S., U.K. and other powers were part of a stabilization package including a balanced budget, monetary stability and an independent central bank. Credits from the U.S. were granted to help the U.K. restore convertibility in 1925. A loan of $100 million by J.P. Morgan to France in 1924 was also given to help stabilize the franc after its precipitous descent since 1922. Similarly, the Dawes Plan of 1924 and the Young Plan of 1930 involved loans by the U.S. to ease Germany's reparation burden. Although similar in some respects to rescue loans, these arrangements were fundamentally different. They were not temporary loans to help a monetary authority already adhering to a pegged currency to stave off a speculative attack in the face of a temporary shock to the balance of payments or financial system.

### *3.2.2 Rescue Loans in 1931*

The gold exchange standard did not endure serious financial crises from 1925 until 1931 sufficient to require an international rescue. Some students would regard the 1927 cooperation between the central banks of the U.S., France, Germany and Britain as a form of rescue for sterling. Following France's de facto return to gold at an undervalued parity in 1926, and policies by the Banque de France to convert its sterling balances to gold, as well as similar

policies by the Reichsbank, the Bank of England's gold reserves came under pressure in May 1927. A cooperative arrangement between the Federal Reserve and the three other core central banks resulted in the New York Fed reducing its discount rate and purchasing $80 million in the open market. France and Germany halted their conversion of sterling.

Although this episode has been hailed as an excellent example of central bank cooperation, in fact the Federal Reserve would have loosened its monetary policy regardless of England's position, in the face of a weakening domestic economy. In addition, Benjamin Strong, the President of the Federal Reserve Bank of New York , was reluctant to undertake similar operations in the future because he realized that such practices would prove ultimately fruitless in propping up the gold exchange standard (Eichengreen 1992, 210).

The first international financial crisis of the interwar occurred in 1931 during the Great Depression. The depression, spread from the U.S. to the rest of the world via the fixed exchange rate links of the gold standard, created the conditions for serious banking crises in Austria, Germany, and other countries in central Europe. The central European banking crisis was not resolved by rescue loans. Instead, these countries opted for exchange controls. The crisis then spread to Britain culminating in her departure from gold on September 19, 1931.

### *3.2.3 Austria May-June 1931*

On May 17, 1931, the Credit Anstalt, Austria's largest bank revealed that it was insolvent. The Credit Anstalt, weakened by its absorption in 1929 of the insolvent Boden Credit Anstalt and worldwide deflation, was then recapitalized by the Austrian government. A run on other Austrian banks ensued. The Austrian National Bank, as lender of last resort, engaged in discount window lending. Fears that expansionary monetary policy would reignite the hyperinflation that Austria suffered in the 1920s led to a run on the reserves of the Austrian

National Bank. The run ultimately ended in July when Austria imposed extensive exchange controls (Schubert 1990; Eichengreen 1992).

The Austrian authorities tried to stem the crisis by soliciting a foreign loan from the Bank for International Settlements (BIS) created in 1930 to administer German reparations payments to the allies and to foster central bank cooperation. The Austrian government sought 150 million schillings ($21 million). The BIS arranged for a loan of 100 million schillings ($14 million) from eleven countries. The process took two weeks and almost immediately the credit was exhausted. The credit was accompanied by a standstill agreement under which foreign banks agreed not to withdraw their deposits in question in return for future favorable treatment. A request for a second loan foundered when France and several other countries insisted that Austria forswear joining a customs union with Germany that had been announced in March. The Bank of England then unilaterally extended a loan of 50 million schillings ($7 million) for a week (Eichengreen 1992; Kindleberger 1989). When a rise in the discount rate proved ineffectual in defusing the speculative attack, exchange controls were imposed and Austria in effect left the gold standard. A similar crisis hit Hungary in the final week of June 1931 and a consortium of nine central banks and the BIS extended a three month credit to the central bank. It was insufficient to halt the run and as in the Austrian case, the crisis ended with the imposition of exchange controls in July.

### *3.2.4 Germany - July 1931*

The crisis spread to Germany, as foreign depositors feared the Austrian events would be repeated in a country with a similar banking system and similar problems. A full fledged banking panic occurred after the failure of the Danat Bank on July 17, 1931. The Reichsbank

responded by guaranteeing its deposits. The run on other banks was ended by a suspension of cash payments.

A speculative attack on the Reichsbank's reserves threatened to breach its statutory gold reserve requirements in June. The Reichsbank then sought and obtained an international loan of $100 million ($25 million each from the Bank of England, Banque de France, Federal Reserve Bank of New York and the BIS) on June 25. The loan proved insufficient to stem the speculative attack. A second loan request by Hans Luther, the President of the Reichsbank, for $1 billion foundered in the face of opposition by both the Banque de France and the Federal Reserve. The external drain was finally halted by the announcement of a standstill agreement on July 20 and the imposition of exchange controls.

### *3.2.5 Great Britain - September 1931*

A succession of political and economic shocks unhinged sterling's link to gold. In the first half of 1931, a deficit in the fiscal budget resulted from depression-induced outlays on unemployment insurance. The invisible trade balance shrank as interest rates on foreign investments fell, and income from shipping and financial services declined with the contraction of foreign trade. Reserve losses starting in May 1930 brought gold reserves down to under £150 million, a level observers regarded as a critical minimum. In May 1931 the Austrian banking crisis precipitated capital flight and the announcement of a banking holiday. British deposits of £5 million in Vienna were thereby frozen. The next month banking difficulties in Germany made £70 million of German debts to British banks uncollectable, and at the same German investors repatriated their London funds. The closing of Germany's largest bank in July and the publication of the Macmillan Committee Report led to a fall in sterling below the gold export

point against major currencies. Bank rate was raised twice in July from 2.5 % to 4.5 % but not changed again before convertibility was suspended.

On 1 August, the May Committee forecast large budget deficits that would require tough political decisions to raise taxes and reduce expenditures. The Labour Government, unable to solve the budget problem, resigned on 23 August, and was replaced by a multiparty coalition. Its attempt on 10 September to achieve budget balance was unsuccessful.

In the final week of July 1931, the Bank of England obtained matching credits of £25 million from the Banque de France and the Federal Reserve Bank of New York. The amount was inadequate to halt the run. Further loans to Britain of $200 million each from a syndicate formed by J.P. Morgan in New York and a syndicate in Paris also proved inadequate. The crowning event that disturbed investor confidence was disaffection among Navy personnel over pay cuts that the press described as a mutiny. With reserves dwindling, the Government suspended convertibility on 19 September.

### *3.2.7 The Dollar and the Gold Bloc*

Britain's departure from gold was followed by 24 other countries. A gold drain from the U.S. in the fall of 1931 was thwarted by a sharp increase in the discount rate. Tight monetary policy worsened the banking crisis there. Ever worsening banking panics in the U.S, in the absence of concerted expansionary policy by the Federal Reserve flush with sufficient gold reserves to carry it out (Bordo, Choudhri and Schwartz 1998), culminated in a nationwide panic in early 1933 that ended with a banking holiday in March. For the first time, domestic investors, fearful that the newly elected President Roosevelt would devalue the dollar began converting dollars into gold. Although the U.S was not forced off the gold standard, the dollar was allowed

to float in April 1933 and was repegged to gold a year later at a greatly devalued parity. No rescue loans were elicited in this experience.

Once the U.S. and its trading partners devalued their currencies, the pressure spread in 1935 to the Gold Bloc countries (France, Belgium, Holland, Italy, Poland, and Switzerland), the only major ones freely convertible into gold. For them adherence to the gold standard itself represented an ever higher barrier for domestic policies to surmount. Their difficulties mounted in face of competition from the depreciated sterling bloc, capital flows to the United States, exchange controls in many countries, and resistance at home to the deflationary effects of maintaining their parities (Eichengreen 1992).

The need for fiscal austerity was undermined by rearmament expenditures. Capital flight was one manifestation of the erosion of confidence in the ability of the bloc to sustain their parities. Belgium, heavily dependent on foreign trade, was the first to abandon the bloc in March 1935. A rescue loan of 100,000 guilders from Holland proved insufficient.. France was in the same situation as Belgium, but tried to expand domestic credit while remaining firm in its gold commitment. Holland escaped the pressures that Belgium and France experienced because its foreign trade was mainly with its colonies. By 1936 the condition of the gold bloc had markedly deteriorated. Poland imposed exchange controls. France, Holland, and Switzerland did not, and experienced gold losses. In April 1936, the Popular Front came to power in France. As previous governments had done, it tried to combine reflation and defense of its parity, and failed. In September 1936 France devalued after negotiating the Tripartite Agreement with the British and Americans not to engage in competitive devaluations. The other Gold Bloc countries also devalued and joined the Agreement (Eichengreen 1992).

### *3.2.8 Post-Mortem*

An argument has been made that had rescue loans of sufficient magnitude been advanced and had the central bank cooperation that prevailed before 1914, or in the 1920s, been extended, the crisis of 1931 could have been prevented (Eichengreen 1992). Alternatively, had an international lender of last resort been present, it could have saved the day (Kindleberger 1989). It seems doubtful that either cooperation or an international lender of last resort would have worked. The fundamental problem of worldwide deflation and depression lay with the incorrect policies followed by the U.S. and France, which combined with the flawed structure of the gold exchange standard inflicted depression and deflation on the central European countries with weak banking systems. Absent a reversal of the deflationary policy stance of the Federal Reserve and the Banque de France, successful rescues would have been short-lived. In the case of the U.K., absent a major fiscal reform, no rescue no matter how large would have allowed her to preserve the parity.

This begs the issue of the role for an international lender of last resort, an entity capable of supplying unlimited amounts of high-powered money in international currency (then gold) which did not then or has ever existed. Even if such an agency, designed on the lines of Keynes (1930) Supernational Central Bank, existed, had it followed the classic Bagehotian strictures of lending at a penalty rate on the basis of sound collateral to illiquid but solvent borrowers, it is doubtful that it would have made the rescues.

As Hawtrey stated , "Unlimited credits would have enabled the country to remain on the gold standard, prolonging conditions that were rapidly becoming intolerable ... the lesson: if the country can maintain the monetary standard without undue stress, then grant unlimited credit; but if the effort of maintaining parity is excessive, no credits and allow the currency to depreciate" (Hawtrey 1932, 229-32).

### *3.3 Bretton Woods*

The framers of the Bretton Woods agreement in July 1944 established an international monetary framework that would overcome the perceived problems of the interwar period, especially the perceptions that capital flows (hot money movements) were a key source of the instability of the 1930s and that international cooperation had failed. Embedded in the Articles of Agreement was a proscription of free capital mobility. The International Monetary Fund was established to provide temporary assistance to countries with current account imbalances. Members were to declare par values in terms of dollars and/or gold. As it evolved, currencies became convertible into dollars, with the dollar alone convertible into gold. Par values could only be altered in the event of a fundamental disequilibrium. The adjustable peg system was designed to combine the advantages of a fixed nominal anchor of the gold standard with the escape clause of altering parities in the face of terms of trade and productivity shocks.

Once the European members declared current account convertibility in December 1958 and the Bretton Woods System began to operate as intended, it quickly evolved into a gold dollar standard with many of the flaws of the interwar gold exchange standard combined with some new ones: the inability of the adjustable peg to adjust because of fear of the speculative attack that would ensue if even the hint of devaluation were made, and the inability to seal off capital flows (Bordo 1993). These flaws opened up the prospects of currency crises in the face of inconsistency between domestic financial policies and/or changing competitiveness and the declared peg.

In addition to crises facing the members of the system, which in some respects echoed the events of the interwar experience, the Bretton Woods system was threatened by a systemic crisis. As outstanding dollar liabilities increased relative to U.S. gold reserves, so did the

likelihood of a run on the center country of the system. By the late 1960s this confidence problem was worsened by expansionary U.S. monetary policy. In the face of U.S. inflation, other member countries became increasingly reluctant to accommodate growing U.S. balance of payments deficits and the system collapsed on August 15, 1971 when President Nixon closed the gold window in the face of an attempted conversion by Britain and France of dollar liabilities.

Below we describe the rescues based on IMF loans and G-10 Basle Arrangements of members facing currency crises and the unsuccessful policies by the U.S.
and other members to save the system.

### *3.3.1 Rescues Under Bretton Woods*

Before describing the rescues of member countries undergoing financial crisis, we mention an historic example of a stabilization loan that proved unsuccessful -- the case of Britain 1947.

Britain, as was the case with other European belligerents, emerged from World War II with a massive balance-of-payments deficit in gold and dollars. To ensure that she would ratify the Bretton Woods Articles and quickly restore current account convertibility, the United States and Canada extended a $5 billion loan. Britain restored current account convertibility on 11 July 1947. The ensuing run on sterling depleted the U.K.'s reserves by $1 billion within a month. Convertibility was suspended on 20 August 1947.

The return to the pre-World War II parity of $4.03 without accounting for the change in competitiveness that had occurred since created the conditions for the crisis. These conditions did not disappear. In the summer of 1949 confidence in the official exchange rate of sterling weakened markedly, setting the stage for a speculative attack.

Sterling was an international currency, with exchange controls to protect its inconvertibility into dollars. Nonresident holders of inconvertible sterling, however, had an incentive to get around British exchange controls, for example, by selling sterling for dollars at a rate of exchange that was lower than the official rate, then using the proceeds to buy dollar goods that could be sold at a profit. The buyer could purchase sterling goods cheaply. Speculating on devaluation was a sure bet. On September 18, sterling was devalued to $2.80.

No rescues were announced on this occasion. Although the IMF was not notified of Britain's intentions until the last minute, the episode was viewed as an example of a devaluation in the case of a fundamental disequilibrium.

*Suez - 1956 - 57*

The Suez crisis of the Fall of 1956 was a political crisis. However, after the abortive invasion of Egypt, all the belligerents turned to the IMF for assistance. Egypt, France and Israel drew upon their gold tranches and first credit tranches to reduce current income shortfalls. Britain drew out its gold tranche and credit tranche like the others but it also requested a one-year standby agreement of $738.5 million of which $561.5 million was drawn. Debate swirls over whether the Suez crisis really was a financial crisis (Boughton 1998; James 1995). A recent paper argues that the pound came under heavy speculative pressure in the form of short-term capital outflows unrelated to the current account. with the U.K. losing one-fifth of its total reserves on November 1, 1956 (Klug and Smith 1997). Presumably then the rescue was successful as Britain's current account returned to surplus in 1957.

*Canada, 1962*

In September 1950, Canada floated its currency in the face of a massive capital influx from the United States. Canada maintained its float, despite criticism from the IMF, until May 2,

1962 when it was pegged at 92.5 cents U.S. The decision to repeg reflected government initiatives to stimulate an economy in recession and to reduce dependence on foreign investment. The peg quickly came under fierce attack and the Bank of Canada lost one third of its reserves in the first three weeks of June. In reaction, special tariffs and tight monetary and fiscal policies were announced and a rescue line of credit was arranged for $1,050 million ($300 million from the IMF, $400 million from the U.S. Export-Import bank, and credits of $250 million and $100 million under swaps with the Federal Reserve and the Bank of England). The package was successful and capital flows quickly exceeded the current account deficit. All the credit arrangements were terminated or converted to standbys by the end of 1962 (Yeager 1976, 560).

*Italy - 1964*

Italy had pegged the lira at 625 to the dollar in 1949 and through much of the subsequent 13 years had enjoyed rapid growth and balance of payments surpluses. Beginning in 1962, in the face of expansionary monetary policy, the balance of payments went into deficit and the Bank of Italy began losing significant reserves in 1963. Fiscal and monetary austerity in early 1964 and an international rescue package in March, of a $1 billion line of credit from the U.S., Great Britain and Canada and $225 million from the IMF succeeded in halting a speculative attack on the lira. Within the year, Italy's trade deficit turned into surplus (Yeager 1976, 550; Solomon 1982, 52).

*Sterling 1961 to 1967*

Throughout the period 1959-67, once current account convertibility was restored, the United Kingdom alternated between expansionary monetary and fiscal policies designed to maintain full employment and encourage growth and austerity programs - a strategy referred to as stop-go. The connecting link was the state of the balance of payments. Expansionary policy

inevitably led to deterioration in the current account, a decline in international reserves, and speculation against the sterling parity. The basic problem was a slower growth rate in the United Kingdom than in its trading partners coupled with a higher underlying inflation rate, which threatened the competitive position of the pound. On several occasions, standby loans were drawn from the IMF and rescue packages arranged by the G-10 through the BIS, referred to as Basle-type operations and arrangements (Tew 1988, Ch. 10). Expansionary policy and rapid growth in 1959 led to a current account deficit in 1960 and a crisis in March 1961. It was alleviated by a Basle credit put together by eight countries for $810 million (£325 million). On July 25, 1961 the U.K. adopted an austerity program, drew $1.5 million from the IMF and received a further standby credit of $400 million. The pressure on sterling abated, allowing the U.K. to repay its credits while retaining a standby loan of $100 million from the IMF (Tew 1988).

With an improvement in the balance of payments, policy switched to ease in 1962 and was expansionary throughout 1963. By the time the Labour party was elected on October 16, 1964, the current account had deteriorated quite markedly, and reserves declined rapidly. The Wilson government refused to devalue, announced an import surcharge on October 26, but did not depart from its expansionary policy. The balance of payments continued to deteriorate, reserves declined, speculation against sterling mounted, and, on 25 November, a $4 billion rescue package was arranged with the G-10 and the IMF ($3 billion from the G-10 plus Switzerland, the BIS and the U.S. Export-Import Bank, a $1 billion standby loan from the IMF's General Arrangement to Borrow [GAB]).

The authorities continued to maintain a relatively expansionary policy through 1965, and pressure on sterling reserves continued. In March the Bank of England drew on its swap credits

with the Federal Reserve and other central banks. In May, the U.K. drew $2.4 billion from the IMF under the GAB (Solomon 1982, 59).

A tight budget package was instituted in July 1965, along with restrictions on capital outflows. The pressure temporarily abated but arose anew in the spring and summer of 1966. This time a massive austerity program was instituted on 20 July, and external assistance was provided by the Federal Reserve and other central banks (the Federal Reserve swap facility with the Bank of England was increased from $750 to $1,350 million).

Declining output and rising unemployment in early 1967 led to a reversal of the tight fiscal and monetary policies. The balance of payments deteriorated in the summer of 1967. A series of adverse shocks – the closing of the Suez Canal during the Six-Day War and a dock strike in October were contributing factors. A speculative attack on sterling was mounted in November. Loans of $1.7 billion from May to November were insufficient to stem the tide. Discussion of a $3 billion rescue package came to naught (Solomon 1982, 90).

*The French Franc - 1968 - 69*

Strikes and student riots in France in May 1968, to which the government responded with expansionary monetary and fiscal policy, led to a speculative flight from the franc and a considerable drop in French international reserves. The pressure was alleviated by a massive rescue package organized by the U.S. in June (France's $100 million swap line with the Federal Reserve was increased to $700 million and it also obtained $745 million from the IMF's GAB)

The pressure continued into the fall of 1968, but the French resisted devaluation in November, shifting to tight monetary and fiscal policy by cutting public spending, increasing indirect taxes, imposing ceilings on commercial bank lending, and raising interest rates.

These measures did not suffice to reduce the growing deficits in the French current account during the first two quarters of 1969. The French again tightened restrictions on bank credit, raised minimum requirements for hire purchase, and in July froze funds for public investment. To resist devaluation France incurred short-term debts of $2.3 billion. The drain on French reserves, however, continued. On 10 August French resistance ended. The franc was devalued by 11.11%.

### *3.3.2 Rescuing the Dollar - 1960 - 1971*

The rescues of the United Kingdom and the other countries occurred against a backdrop of an ongoing systemic disequilibrium which would ultimately lead to the collapse of the Bretton Woods system. Although many of the rescues described above were successful in the sense that they alleviated the pressure to devalue and the loans were ultimately repaid, in the end, the adjustable peg system collapsed into the managed float regime that endures to the present. Hence, at best, the rescues were holding actions.

The Bretton Woods system, which after 1959 had evolved into a gold exchange standard, based on the dollar's convertibility into gold and the rest of the world's use of dollars as foreign exchange, became increasingly prone to speculative attack. U.S. balance of payments deficits persisted and outstanding U.S. dollars liabilities increased relative to U.S. gold reserves. The U.S. monetary authorities as well as most of the members of the system (with the principal exception of France) followed policies and created remedies to stave off the inevitable collapse. Reform of the system was proposed but with the exception of the creation of the Special Drawing Right (SDR) in 1968, a dollar substitute reserve asset was not adopted. We briefly document elements of the unsuccessful rescue of the dollar that was mounted from 1960 to 1971.

*The Problem*

The first signs of trouble began in 1958 with the appearance of an official settlements balance of payments deficit that persisted, with the notable exception of 1968-69, until the end of Bretton Woods. As official dollar liabilities held abroad mounted with successive deficits, the likelihood increased that these dollars would be converted into gold and that the U.S. monetary gold stock would eventually reach a point low enough to trigger a run. Indeed, by 1959, the U.S. monetary gold stock equaled total external dollar liabilities, and the rest of the world's monetary gold stock exceeded that of the United States. By 1964, official dollar liabilities held by foreign monetary authorities exceeded the U.S. monetary gold stock.

The gold rush of October 1960 provided the first glimpse of a confidence crisis, when speculators pushed the free market price of gold on the London market up from $35.20 (the U.S. Treasury's buying price) to $40.00. This first significant run up in gold prices since the London gold market was reopened in 1954 was supposedly triggered by concerns over a Democratic victory in the 1960 U.S. presidential election. Kennedy's pledge "to get America moving again" was interpreted as an inflationary policy that might force the United States to devalue its currency (i.e., unilaterally raise the price of gold in terms of dollars [Solomon 1982, 35]).

In consequence, during the period 1961-67, the United States, other countries, and the IMF activated a series of arrangements including the GAB, swaps, Roosa Bonds, and the Gold Pool., designed to protect U.S. monetary gold reserves.

*The General Arrangements to Borrow*

In 1960, the IMF Articles were extended by the establishment of the GAB under which the G-10 countries pledged an additional $6 billion on top of $14.4 billion in quotas to be made

available to the IMF to provide assistance to a major country in the event of a crisis that could not be handled by a country's own reserves and its IMF quota.

*Swaps and Roosa Bonds*

In 1961, the Federal Reserve Bank of New York introduced a series of swap agreements with other central banks beginning with a swap line of $50 million with the Banque de France. By the end of the Bretton Woods era the Federal Reserve Swap network grew to $18 billion. In a swap arrangement, one central bank extended a bilateral line of credit to another. Typically, the Federal Reserve borrowed a foreign currency to purchase dollars held abroad instead of selling gold (Meltzer 1991, 62). To repay the swaps, the Treasury issued Roosa bonds, that is, long-term bonds denominated in foreign currencies. By issuing Roosa bonds, the U.S. monetary authorities avoided reducing gold reserves.

*The Gold Pool*

To prevent a rise in the free market price of gold leading to a run on the U. S. monetary gold stock, the London Gold Pool was established in 1961. With the Bank of England as agent, the United States, along with seven European central banks, agreed to buy or sell gold in order to peg the price at $35.00 per ounce. For the next six years, the Pool succeeded in stabilizing the price of gold, but it did not prevent a steady decline in the U.S. monetary gold stock The United States also dissuaded foreign monetary authorities from converting dollars into gold.

*Other Policies*

In addition to policies designed to prevent the conversion of dollars into gold, the U.S. monetary authorities developed a number of other policies to reduce the balance of payments deficit. These included capital controls, balance of trade measures, and altering the monetary-fiscal policy mix. The Kennedy and Johnson Administrations imposed a series of restraints on capital outflows (Solomon 1982; Meltzer 1991). Prominent among them were an increase in taxes on foreign earnings of U.S. corporations in 1961 and the Interest Equalization Tax of 1963, which imposed a 1% tax on the yield of foreign securities. The tax was extended to bank loans in 1965, and the rate was doubled in 1967. In 1965 guidelines on direct investment and limits on the growth of bank lending to foreigners were added.

*Balance of Trade Measures*

A number of measures were designed to reduce official spending abroad and to encourage exports and discourage imports. These included a reduction in defense and non-defense government purchases abroad, expansion of Export-Import Bank lending in 1960, and tying development aid to dollar purchases in 1961.

*The Monetary-Fiscal Policy Mix*

During the Kennedy and Johnson years, some attention was devoted to tailoring the monetary-fiscal policy mix to maintain both internal and external balance (Mundell 1968, Ch. 16). The most well-known attempt was expansionary fiscal policy (an investment tax credit, accelerated depreciation allowances) to cure the recession of 1960-61, combined with Operation Twist, which was designed to twist the yield curve and raise short-term rates, thereby encouraging a capital inflow while simultaneously reducing long-term rates to stimulate the economy.

*The Outcome: Collapse of the System*

In the end, none of the measures proved successful. The Gold Pool collapsed in a speculative run from December 1967 to March 1968 in which $3 billion was lost. It was disbanded on March 17, 1968, and a two-tier arrangement put in its place. Pressure on the dollar increased in the next three years. U.S. balance of payments deficits mounted beginning in 1961 consequent upon the pursuit of expansionary monetary policy to finance the war in Vietnam and increased spending on social programs. The continental European countries became increasingly unwilling to accept the inflationary consequences from the increased dollar holdings that their mounting balance of payments surpluses with the U.S. produced. The U.S. decision to suspend gold convertibility on August 15, 1971 was triggered by French and British intentions in early August to convert dollars into gold.

The U.S. decision to suspend gold convertibility ended a key part of the Bretton Woods system. The remaining part of the system -- the adjustable peg -- disappeared 19 months later in the face of a series of monthly rolling speculative attacks.

*Post Mortem*

In sum, in the Bretton Woods era, many individual country rescues were temporarily successful but in the cases where inconsistencies between the fundamentals and the pegged exchange rate remained, as in the case of sterling, the rescues ultimately failed. At the same time as increasing resources were devoted to rescues, the system deteriorated because of fatal flaws reminiscent of the interwar gold exchange standard. The center country, the U.S., followed policies incompatible with its role, and its policies conflicted with the policies followed by the other members. Consequently, the attempts at rescue and the architecture designed to preserve the system failed. A reading of successive issues of the *Federal Reserve Bulletin* in which

details of each "successful" rescue and plans for future defenses are described year by year until 1970, after which point nothing is said, makes the point.

### *3.4 Post-Bretton Woods, 1973-1990*

The OPEC oil embargo in the 1970s dominated international events. Loans extended to low-income countries were structural and humanitarian, to enable them to buy high-priced oil. They were not rescue loans. A similar observation applies to the recycled loans by syndicated commercial banks in advanced countries, in which OPEC deposited the huge increase in its income. Those loans were extended mainly to the Latin-American public sector, but the private sector also assumed a heavy burden of debt. Debt service including short-term amortization represented a claim that virtually exhausted current account income. As foreign debt continued to increase, and the ratio of public debt to GDP soared, capital flight became pronounced. Debt service by the public and private sectors came to a halt in 1982. The strategy of national authorities in the face of this crisis was to protect the lending banks. They were cajoled to extend enough new loans to the borrowers to enable them to pay interest, and thus avoid the designation of the original loans as nonperforming on the banks' books. This strategy, also followed by the IMF, which lent enough to borrowing countries to keep up debt service, was maintained until 1987 when the banks began to provision the Latin-American loans (Schwartz 1989). The solution of writing down the loans was not adopted until the end of the decade when Brady zero-coupon bonds were sold by the U.S. Treasury to the Latin-American governments. This was no international rescue.

## *4. International Bailouts in the 1990s*

We distinguish rescue loans extended before the 1990s from bailout loans made during the 1990s. Rescue loans were made in an attempt to prevent a devaluation or abandonment of a

pegged exchange rate by the core industrialized countries. They were temporary loans, at commercial market interest rates, limited in magnitude, but sufficient to offset a current account deficit. No taxpayer money was involved. Loans in the past accompanied a package of remedial policies.

Loans in this decade have been extended to newly emerging countries after their attempt to defend a peg has failed. The loans have been multiples of the amounts that were granted in past decades. The recent loans are designed to offset a capital account outflow, the effect of which was to endanger repayment of the lenders. The size of the loan is large enough to provide the wherewithal to repay foreign and domestic lenders. A wealth transfer from taxpayers to wealthy recipients is involved. That is why the chief indictment of the bailout model of international lending is that it promotes moral hazard. Lenders presume that, whether or not the resources they provide to the borrowers are put to productive use, they are not at risk because a bailout package will protect them. Borrowers presume that, if there is a reversal of the conditions that invited inflows of funds, their debts will be repaid by others or drastically discounted.

We discuss the salient bailouts of the period: Mexico, 1994-95; Asian countries, 1997-98; Russia, 1998.

### *4.1 Mexico, 1994-95*

Many factors contributed to the makings of the Mexican financial crisis. One factor was the fact that the narrow band within which the exchange rate of the peso was permitted to depreciate failed to reflect the growing discrepancy between the U.S. and Mexican inflation rates. Accordingly, the peso was overvalued and the current account deficit as a percent of GDP kept rising. Another factor was the decision of monetary authorities to substitute dollar-linked short-term Tesobonos for peso-denominated Cetes. The government did so because it could sell

Cetes only by offering higher yields than Tesobonos investors demanded. Keeping interest rates below their equilibrium level was a strategy to support the real economy, which was growing only anemically, and the banking system, with a rising ratio of nonperforming loans. At the same time, the central bank sterilized outflows of foreign capital by increasing the monetary base, which added to inflationary pressure. Outflows were motivated by political unrest in a southern Mexican province and the assassination of the candidate for president of the PRI, the main political party. Short-term public debt amounted to $16 billion, when the new president took office in December 1994, and international reserves were $10 billion (Edwards 1998). Widening the band on the exchange rate did nothing to allay the alarm of domestic and foreign investors about Mexico's financial problems. Foreign capital fled, and the peso was freed to float.

Following the assassination on March 23, 1994, and the closing of Mexican markets on March 24, the Federal Reserve approved a temporary increase from $700 million to $3 billion in its swap arrangement with Mexico, and the ESF announced a swap of the same amount. No drawings were made on these lines. Effective April 26, 1994, the Federal Reserve enlarged swap lines were made permanent, as part of a trilateral facility, comprised of Canada, Mexico, and the United States, with the participation of the Federal Reserve and ESF, each contributing $3 billion (Federal Reserve Bulletin July 1994, 586-87, 619-20).

On January 31, 1995, President Clinton announced a package of loans for Mexico, including $20 billion from the ESF. On January 11 and 13, Mexico drew on its short-term swap lines with both the Federal Reserve and the ESF, amounting to $250 million on each occasion from each source (at an annual interest rate of 5.9%). On February 2, it drew $1 billion from each short-term facility (at an annual interest rate of 5.8%). On March 14, it drew $3 billion from the ESF medium-term facility, and repaid the January short-term drawings (at an interest rate of

8.2%). The February 2 borrowing from each source was renewed when due 91-days later on May 3 (at an interest rate of 5.45%). The renewal date after August 1 would have been October 30. On October 10, however, Mexico repaid $350 million of the $1 billion it owed each authority. The balance of $650 million due to each that was renewed on October 30 (at an interest rate of 5.25%) on January 29, 1996, was repaid (FRB June 1995,585-90; Sept. 1995, 836-37; Dec. 1995, 1084-86; Mar. 1996, 210-11, 213).

Three more drawings of $3 billion (Apr. 19), $2 billion (May 19), and $2.5 billion (July 5) were made by Mexico on the medium-term ESF facility for a total of $10.5 billion, the first two at an interest rate of 10.16%, the third at 9.2%. In July 1996, Mexico issued $6 billion in five-year floating-rate notes at a spread of 200 basis points above LIBOR, and in September it placed a $1 billion 20-year Eurobond, issued at narrower than expected spreads over U.S. Treasury bonds. On August 5, Mexico repaid in advance $7 billion of the $10.5 billion outstanding under the ESF's medium term swap facility. It repaid with $5 billion the two swaps drawn in April and May 1995 and $2 billion to pay down 80% of the July 1995 drawing (FRB, Dec. 1996, 1106. On January 16, 1997, Mexico repaid $3.5 billion on its medium term swap with ESF (June 1997, 493). Amortization of these tranches was originally scheduled between 1997 and 2000.

In addition to borrowing from the Federal Reserve and the ESF, Mexico obtained loans from the IMF, the World Bank, and the Inter-American Development Bank. The IMF on February 1, 1995, agreed to a standby loan of 12.7 billion SDR with an expiration date of February 15, 1997. 3.312 billion SDR was undisbursed. Repayment was due 3-5 years after the expiration of the loan. The BIS was expected to participate in loans to Mexico, but it is not clear that it did so.

The Mexican bailout has been hailed by the official lenders as a great success. The U.S. Treasury has even boasted of early repayment by Mexico, and the magnitude of the interest earnings on the loans. Political pressure for early repayment arose because of Congressional disapproval of the Treasury's role in orchestrating the package of international loans. Early repayment was made possible by Mexico's borrowing abroad at interest rates higher than the Treasury charged. One counterfactual is that, in the absence of Treasury intervention, Mexico could have tapped the capital markets directly, since it could offer collateral of oil revenues, and was willing to pay a market rate of interest that reflected credit risk. In respect of the success of the bailout, two measures are the size of its federal debt -- in 1997 larger than in 1994 when the peso was devalued -- and the level of its per capita real GDP -- barely equal in 1997 to the 1994 level. The banking problems of insolvent institutions and high ratios of nonperforming loans that existed in 1994 still exist in 1998.

### *4.2 Asian Country Loans*

Banking crises are the common element of the Asian financial difficulties in the 1990s. The banking crises occurred because of an earlier excessive expansion of credit. Capital inflows consequent upon liberalization were the source of the credit expansion in Thailand, Malaysia, South Korea, and Indonesia. It was not contagion from Thailand that made the other Asian countries vulnerable to a financial crisis. They were vulnerable because of their home-grown problems. The origins of the banking problems were an increase in their lending power, and a decrease in the creditworthiness of the projects they financed. Their own unsound performance in lending and asset acquisitions, and their lack of adequate capital account for the banks' poor condition. In all the countries credit allocation has not been market driven. Political influence has been exerted on the banks to lend as directed. Regulatory corruption has occurred to shield banks

from penalties for not observing regulations. The expansion of bank credit has been channeled to loans for the creation of unprofitable industrial capacity and the purchase of equities and real estate. The bubbles in asset prices burst for commercial property prices between 1990 and 1995, for residential property prices between 1992 and 1997. As the value of the asset collateral held by banks declined, the pressure on leveraged investors to sell exacerbated downward pressure on prices. The capital from abroad became the basis for nonperforming loans by Asian banks.

Even if authorities permitted the banks to operate, the general perception was that they were undercapitalized and the book value of their assets far exceeded market value. Many banks were insolvent. Yet it was not the condition of the banks that triggered the financial crisis. In each country the exchange rate was pegged to the dollar or another hard currency. The trigger was a currency crisis.

Because local lenders harbored doubts about the future value of the domestic currency, as seen in a risk premium on domestic securities, nonfinancial firms and governments of the Asian countries issued interest-bearing debt denominated in foreign currencies at lower interest rates. Companies borrowed in dollars or yen but earned revenue in local currencies. These companies are now vulnerable to the increase in the burden of their foreign indebtedness given their limited ability to repay it.

Finally, the foreign exchange reserves of the Asian countries were far from ample. To defend the exchange rate the central bank would have had to tighten monetary policy to convince the market that it would not devalue. To tighten, however, would restrict economic growth, already slowing, and exacerbate the problems of distressed financial institutions.

The foreign exchange market summed up these concerns about the Asian countries by selling off their currencies. Stock market declines matched the currency declines. It was not,

however, overreaction by foreign investors following the fall of the baht that led the Indonesian rupiah, the Malaysian ringgit, and the South Korean won to slip their pegs. It was in each case a growing current account deficit, excessive short-term foreign borrowing, a banking sector weighed down by speculative property loans, corrupt government and business practices that accounted for the currency's fate (Schwartz 1998).

Of the four Asian countries, only Malaysia refrained from requesting IMF assistance. In August 1997 a $17.2 billion rescue package was assembled for Thailand by the IMF and Asian countries, including a $4 billion standby credit (505% of its quota), a multilateral loan of $2.7 billion, and a bilateral loan of $10.3 billion. The IMF disbursed $2.8 billion of its standby credit. In November, the IMF agreed to give Indonesia a standby credit of $11.2 billion (490% of its quota), of which $5 billion was made immediately available. The total loan package including commitments from other official facilities and bilateral sources amounted to $42.3 billion. In July 1998 the IMF and other international lenders promised Indonesia an additional $6 billion. In December 1997, for South Korea the IMF approved a $20.9 billion loan over three years, of which it disbursed $17 billion immediately. The total loan package came to $58.2 billion. The source of these figures is *The IMF in 1997/98*, p. 24.

In none of the Asian countries has the banking problem been resolved. Negotiations with foreign lenders have established frameworks for restructuring debts, but not at the level of the individual company borrower and its foreign lender. The Asian countries have not yet begun sustained recoveries.

### *4.3 Financial Crisis in Russia, 1992-1998*

The Russian economy for seven years has made unsuccessful efforts to convert a command economy into a market oriented one. The basic command structure remains, with state

enterprises, whether or nor nominally privatized, operating as before. Foreign investors have bought government bonds with high yields, but the government has been unable to collect tax revenue sufficient to pay for its outlays. Enormous arrears of wages and pensions due government employees in state enterprises and in the military and pensioners have mounted. The infrastructure of courts, a legal system, and property rights still do not exist. Reform pledges have not been kept. A bout of hyperinflation after the collapse of the soviet regime ended when the central bank gained control of the supply of rubles. Political disarray and financial turmoil in the summer of 1998 have resulted in chaos in the economy. In August, the government defaulted on $40 billion of ruble-denominated bonds and unilaterally rescheduled the loan on confiscatory terms. Many Russian private banks are insolvent, but thanks to politically influential owners continue to operate. In July the central bank injected liquidity by cutting reserve requirements for the banks, to enable them to meet obligations to creditors and depositors. The banks, however, used the rubles to buy dollars. The central bank then began a massive intervention in support of the ruble, losing reserves at an alarming rate. It gave up after the ruble weakened upon widening the trading band. Thereupon, the central bank suspended trading in foreign currencies indefinitely. After a change in the prime minister and the governor of the central bank, the government announced that it would increase the supply of rubles until the end of the year, in order to repay outstanding arrears, whatever the inflationary consequences.

In August 1992, April 1995, and March 1996, the IMF has lent Russia a total of 11.933 billion SDR in exchange for promises of reform. In July 1998, it approved an $11.2 billion loan, conditional on the reforms that were promised in 1992: reducing the fiscal deficit, dealing with banking sector problems, controlling government debt. The IMF has repeatedly suspended loans

to Moscow because of its failure to live up to its promises, but has then resumed lending for fear of contagion.

### *5. Conclusions*

What have we learned from this extended survey of international lending across two centuries?

1. Our first conclusion contrasts the experience of the period before 1973 with that of subsequent decades. International lending then constituted rescues of monetary authorities of advanced countries temporarily short of liquidity. Their difficulties were resolved with relatively small amounts of money, sufficient to stave off devaluation or abandonment of a fixed exchange rate, while remedial policies were put in place. Taxpayers' funds were not required. Recent experience of bailouts involve handing over relatively large amounts to both foreign lenders and domestic investors of emerging countries after devaluation of a pegged exchange rate to avoid their incurring wealth losses. These are transfers from the less wealthy to the wealthier.

2. The opening of capital markets after fifty years of impediments to free flows enabled emerging countries to borrow vast amounts from the advanced countries (Obstfeld and Taylor 1998; Bordo, Eichengreen, and Kim 1998). The net flows today rival those of the golden age of European overseas investment before 1914, and the gross flows are a multiple of those in earlier times. The liberalization of the capital accounts in addition to creating opportunities for growth in the emerging countries has exposed them to serious hazards. Lenders may ignore structural problems of underdevelopment in these countries and incorrect policies in their eagerness to profit from the promise of high-yielding investments. Lenders are not fully informed about internal conditions in emerging countries, and borrowers may not put the funds made available to them to their best use. In this respect the boom-bust cycle of international borrowing repeats

events of the 19th century. Prominent examples include British lending to the United States in the 1830s on which a number of states defaulted, and Latin-American booms followed by busts and defaults in the 1820s, 1870s and the 1890s (Marichal 1989).

3. What's different in today's boom-bust episodes from earlier ones is the belief that domestic financial institutions are protected by an internal safety net and that foreign lenders will not suffer losses on their loans in hard currencies because funds to compensate them will be made available by the multiple international lending agencies and the monetary authorities of the advanced countries. In earlier times losses were actually sustained by lenders, and by borrowers who were then cut off from further loans. Eventually, settlement of outstanding debts was reached, but at the cost of cessation of economic growth. Moral hazard weakens incentives for lenders to monitor the performance of both the private and public sectors where they invest. By contrast, in earlier times, presumably both borrowers and lenders learned the hard lesson that caution paid.

4. Why has moral hazard assumed an important role in the environment of the 1990s? We can think of four explanations. The first is contagion. The second is "too big to fail." The third is, extension of the safety net. The fourth is, an implicit contract with the IMF.

In simplest terms, the argument for the threat of contagion is that failure to bail out investors in one emerging country's markets will spill over to other emerging markets, so investors , fearful of getting burned, will abandon those markets as well. Pure contagion would occur only in circumstances in which other emerging countries were free of the problems facing the first emerging country. We know of no evidence of pure contagion. Transmission is another story. Shocks to one country will spill over to other countries through trade and the capital

accounts. When investors withdraw their capital from countries with the same problems as were present in the first such country, this is a demonstration effect, not contagion.

As for "too big to fail," this is a fallacy that domestic lenders of last resort should supply liquidity to insolvent institutions because not to do so would endanger the stability of the entire financial system. The fallacy is that markets cannot distinguish between illiquid and insolvent institutions, and that normal bankruptcy procedures will not allocate resources in a timely fashion to their best use.

Extension of the safety net to cover investors' foreign holdings, such as large investment firms, presumes that the national welfare depends on their welfare. It is far from clear that protection of any sector or industry benefits the whole economy.

Finally, emerging countries may believe that they have an implicit contract with the IMF to be saved from their own folly. This is an expansion of the original terms of the Articles of Agreement at Bretton Woods that established the IMF as a social insurance fund in which members contributed resources, which would be made available to them or other members as needed. Members could have access to the fund in the event of temporary current account imbalances. Capital movements then were proscribed. Today, capital mobility has been restored, and the size of the drawings required greatly exceed any one country's initial deposit or line of credit. Massive loans from other members at below market rates are now expected. One could argue that higher tranche IMF loans are subject to conditionality, and therefore are not free from penalty. However, in contrast to rescues of earlier times, where loans were offered attendant upon remedial policies, conditionality has proved to be more easily evaded.

5. A pervasive problem in the case of all the crises was pegged exchange rates. In the recent examples, loans were extended by foreign commercial banks and other private lenders at

interest rates that did not account for exchange risk based on the incorrect belief that adherence to the peg was durable and credible. This experience supports floating exchange rates to avoid speculative attacks on pegs (Obstfeld and Rogoff 1995). If countries maintain floating exchange rates, capital markets should be able to handle any exigencies of both private and public finance. On the other hand, in normal times small open economies may be well advised to link their national currencies to the currency of a larger trading partner. In those cases, however, when countries are faced with large foreign shocks, they have to weigh the costs of sticking to the peg against the benefits.

6. The rescues of earlier times that were successful teach us that one should rescue a monetary authority that has a temporary liquidity problem, is adopting remedial policies, and has a good chance of timely repayment. Were today's monetary authorities, including the IMF, to lend at short term at a penalty rate on good collateral that exceeds the value of the loan, they would be following Bagehot's principles. However, in a world of deep capital markets, such as prevails today, there are few good reasons why the private markets cannot perform this role.

*References*

Board of Governors of the Federal Reserve System. Federal Reserve Bulletin, various issues.

Bordo, Michael D. (1993). "The Bretton Woods International Monetary System: A Historical Overview." In Michael D. Bordo and Barry Eichengreen (eds.), A Retrospective on the Bretton Woods System. Chicago: University of Chicago Press.

Bordo, Michael D. (1998). "Comment on Neal." Federal Reserve Bank of St. Louis Review 80(3) May/June, p. 77-82.

Bordo, Michael D., Choudhri, Ehsan, and Anna J. Schwartz (1998). "Was Expansionary Monetary Policy Feasible During the Great Contraction? An Examination of the Gold Standard Constraint." Rutgers University mimeo (July).

Bordo, Michael D., Eichengreen, Barry and Jong-Woo Kim (1998). "Was There Really an Earlier Period of International Financial Integration Comparable to Today?" NBER Working Paper (October).

Boughton, James (1998). "From Suez to Tequila: The IMF as Crisis Manager." Economic Journal (forthcoming).

Edwards, Sebastian and Miguel A. Savastano (1998). "The Morning After: The Mexican Peso in the Aftermath of the 1994 Currency Crisis." NBER Working Paper #6516.

Eichengreen, Barry (1992). Golden Fetters. New York: Oxford University Press.

Flandreau, Marc (1997). "Central Bank Co-operation in Historical Perspective: A Skeptical View." Economic History Review 50(4), p. 735-763.

Hawtrey, Ralph G. (1932). The Art of Central Banking. London: Longmans Green.

International Monetary Fund. Annual Report, 1998.

James, Harold (1995). International Monetary Cooperation Since Bretton Woods. New York: Oxford University Press.

Kindleberger, Charles P. (1989). Manias, Panics and Crashes: A History of Financial Crises, Revised Edition. New York: Basic Books.

Klug, Adam and Gregor Smith (1998). "Suez and Sterling, 1956." Explorations in Economic History (forthcoming).

Levy-Leboyer, Maurice (1978). "Central Banking and Foreign Trade: The Anglo-American Cycle in the 1830's." In Charles P. Kindleberger and Jean Pierre Laffargue (eds.), Financial Crises: Theory, History and Policy. New York: Cambridge University Press, p. 66-110.

Marichal, Carlos (1989). A Century of Debt Crises in Latin America. Princeton University Press.

Meltzer, Allan (1991). "U.S. Policy in the Bretton Woods Era." Federal Reserve Bank of St. Louis Review 73(May/June), p. 54-83.

Mundell, Robert (1968). International Economics. Chicago: Chicago University Press.

Neal, Larry (1998). "The Financial Crisis of 1825 and the Restructuring of the British Financial System." Federal Reserve Bank of St. Louis Review 80(3) May/June, p. 53-76.

Obstfeld, Maurice and Alan Taylor (1998). " The Great Depression as a Watershed: International Capital Mobility Over the Longer Run." In Michael D. Bordo, Claudia Goldin and Eugene N. White (eds.), The Defining Moment: The Great Depression and the American Economy in the Twentieth Century. Chicago: Chicago University Press, p. 353-402.

Obstfeld, Maurice and Kenneth Rogoff (1995). "The Mirage of Fixed Exchange Rates." Journal of Economic Perspectives 9(4), p. 73-96.

Patron, Maurice (1910). The Bank of France in its Relation to National and International Credit. Senate Document M494, Washington, DC: Government Printing Office.

Schubert, Aurel (1993). The Credit Anstalt Crisis of 1931. Cambridge: Cambridge University Press.

Schwartz, Anna J. (1989). "International Debts: What's Fact and What's Fiction." Economic Inquiry 27(1) (January): 1-19.

Schwartz, Anna J. (1997). "From Obscurity to Notoriety: A Biography of the Exchange Stabilization Fund." Journal of Money, Credit, and Banking 29 (2) (May): 135-193.

Schwartz, Anna J. (1998). "Asian Banking Crises in the 1990s: All Alike?" In G.G. Kaufman (ed.) Research in Financial Services 10. JAI Press (forthcoming).

Solomon, Robert (1982). The International Monetary System, 1941-1982. Revised. New York: Harper and Row.

Temin, Peter (1969). The Jacksonian Economy. New York: W.W. Norton.

Tew, Brian (1988). The Evolution of the International Monetary System 1945-1988, 4th Edition. London: Hutchinson.

Yeager, Leland B. (1976). International Monetary Relations: Theory, History and Policy. Second Edition. New York: Harper and Row.

Table 1

# INTERNATIONAL RESCUES by REGIMES
## 1821 – 1998

| | Crisis | Circumstances | Rescue | Outcome |
|---|---|---|---|---|
| | | ***THE GOLD STANDARD – 1821 - 1914*** | | |
| 1. | 1825 | External and internal drains consequent upon collapse of South American stock market mania threatens Bank of England's gold reserves | Banque de France loans £ 400,000 | Successful |
| 2. | 1837 | External drain, threatens Bank of England | Banque de France loans £ 400,000 | Successful |
| 3. | 1839 | External drain, threatens Bank of England | Banque de France loans £ 7 million. Hamburg banks loan £ 900,000 | Successful |
| 4. | 1846 | Bad harvest threatens Banque de France reserves | London bank syndicate arranges loans of 25 million francs with Bank of England | Successful |
| 5. | 1847 | Banking panic leads Bank of England to suspend Bank Charter Act | None arranged | Unsuccessful |
| 6. | 1857 | Banking panic leads Bank of England to suspend Bank Charter Act | Rescue loan negotiated but failed | Unsuccessful |
| 7. | 1857 | Banking panic in Hamburg | Rescue loan of 15 million silver marks from Vienna | Successful |
| 8. | 1860 | External drain at outbreak of U.S. Civil War on London and Paris | Swap of £ 2 million in silver for gold | Successful |
| 9. | 1866 | Banking panic in London leads to suspension of Bank Charter Act | No rescue arranged | Unsuccessful |
| 10. | 1890 | Barings crisis, banking panic resolved by "lifeboat" operation depletes Bank of England's reserves | £ 2 million loan from Banque de France; £ 1.5 million loan from Imperial Bank of Russia | Successful |
| 11. | 1885 | U.S. gold reserves threatened by free silver movement | Belmont-Morgan syndicate arranges European loan of $100 million to U.S. treasury | Successful |
| 12. | 1906 | External drain to U.S. threatens Bank of England reserves | Banque de France discounts 65 million francs in sterling bills | Successful |
| 13. | 1907 | New York panic spreads to London | Banque de France purchased 80 million francs in sterling bills | Successful |

| | Crisis | Circumstances | Rescue | Outcome |
|---|---|---|---|---|
| | | ***THE INTERWAR – 1919 – 1939*** | | |
| 1. | Austria – May/June 1931 | Collapse of the Credit Anstalt Bailout leads to currency crisis | BIS arranged $14 million loan from 11 countries. Bank of England lends $7 million | Unsuccessful |
| 2. | Germany – July 1931 | Banking panic; attack on Reichsbank reserves | England, France, US., BIS lend $100 million. Second loan of $1 billion refused | Unsuccessful |
| 3. | United Kingdom – September 1931 | Speculative attack on Bank of England gold reserves | New York Fed and Banque de France lend $50 million in July; J.P. Morgan syndicate in New York and Paris bank syndicate lend $400 million in August | Unsuccessful |
| 4. | United States – March 1933 | Domestic-induced run on U.S. gold reserves | No rescue | Dollar Devalued |
| 5. | Belgium – March 1935 | Speculative attack on gold parity | Dutch loan of 100,000 guilders | Unsuccessful Franc Devalued |
| 6. | France – April 1936 | Speculative attack on gold parity | No rescue loans but tripartite Agreement | Franc Devalued |
| | | ***BRETTON WOODS – 1946 – 1973*** | | |
| 1. | Suez – November 1956 | Drain on Bank of England gold reserves | $738.5 million IMF standby | Successful |
| 2. | Canada – June 1962 | Attack on newly-announced parity | Rescue loan of $1,050 million from U.S., U.K. and IMF | Successful |
| 3. | Italy – March 1964 | Attack on lira | Rescue loan of $1 billion from U.S., U.K. and IMF | Successful |
| 4. | United Kingdom – March 1961 | Drain on Bank of England reserves | Basle credit of $910 million from 8 countries. July 1961, $1.5 billion from IMF and standby of $400 million | Successful |
| 5. | United Kingdom – November 1964 | Speculation against sterling following labour party election | $4 billion rescue package ($3 billion G-10, $1 billion IMF) | Successful |
| 6. | United Kingdom – March 1965 | Pressure on sterling | $1.4 billion from IMF GAB | Successful |
| 7. | United Kingdom – July 1966 | Continued pressure on sterling | Loans by Federal Reserve and other central banks (swap line raised from $750 to $1,350 million) | Successful |
| 8. | United Kingdom – November 1967 | Massive speculative attack on sterling | $1.7 billion in rescue loans; further $3 billion not completed | Unsuccessful; Sterling de-valued by 14% |
| 9. | France – 1968 | Speculative attack on franc in June following student riots | U.S. organized loans ($700 million swap plus $745 million from IMF GAB) | Successful |
| 10. | France – August 1969 | Further drain on French reserves | None | Franc de-valued by 11% |
| 11. | United States – 1960 – 1971 | U.S. gold reserves threatened as U.S. balance of payments deficit mounted | Multi-faceted rescue package | Unsuccessful gold window closed 8/15/71 |

| | Crisis | Circumstances | Rescue | Outcome |
|---|---|---|---|---|
| | | | | |
| | | ***1973 - 1990*** | | |
| | | | | |
| 1. | Latin American Debt Crisis – 1982 | Mexico, Brazil and others default in sovereign debt | Commercial banks, IMF, and U.S. Treasury | Debt restructured |
| | | | | |
| | | ***1990 – 1998*** | | |
| | | | | |
| 1. | Mexico – 1994 – 1995 | Banking and currency crises | $50 billion package by ESF, IMF, and others | Doubtful success |
| 2. | Thailand – 1997 | Banking and currency crises | $17.2 billion package by IMF and others | ? |
| 3. | Indonesia - 1997 | Banking and currency crises | $42.3 billion package by IMF and others | ? |
| 4. | Korea – 1997 | Banking and currency crises | $58.2 billion package by IMF and others | ? |
| 5. | Russia – 1998 | Ruble devaluation and sovereign default | $1.933 billion SDR 1992-96; $11.2 billion 1998 by IMF | ? |
| 6 | Brazil – 1998 | Speculative attack on real | ? | ? |

**Sources: See Text.**